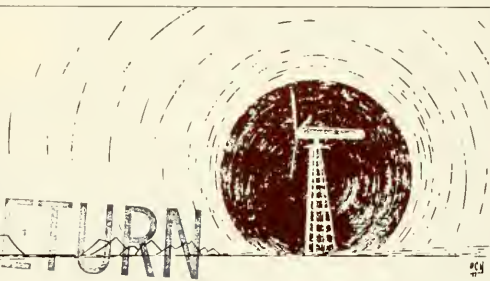


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**MONTANA**  
**ALTERNATIVE RENEWABLE ENERGY SOURCES PROGRAM**

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**GUIDELINES FOR PREPARATION**  
**OF GRANT PROPOSALS**

MONTANA DEPARTMENT OF NATURAL RESOURCES & CONSERVATION

ENERGY PLANNING DIVISION

**DNRC**

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John C. Orth, Director


**PROSPECTIVE GRANT APPLICANTS:**

The following guidelines are designed to aid an applicant in preparing an application for a funding grant under the Alternative Renewable Energy Sources Program. The program is highly competitive and a large number of proposals are received each grant period. Consequently, adherence to the recommended guidelines will greatly assist reviewers in evaluating the merits of the proposal and speed the awarding of grants to successful applicants.

It should be emphasized that the Department encourages all applicants to follow the guidelines when preparing a grant proposal. Although they are recommendations and therefore flexible, they do contain the information required by the law and the rules (copies of both are enclosed). If an applicant chooses not to strictly follow the guidelines, the law is to be followed and the information requested in the rules must be provided.

If any questions arise concerning the guidelines or the rules please do not hesitate to contact the Department for clarification.

Sincerely,



Gerhard M. Knudsen, Program Manager  
Alternative Renewable Energy Sources

GMK/ad

Enclosures



# MONTANA ALTERNATIVE RENEWABLE ENERGY SOURCES PROGRAM

## GUIDELINES FOR PREPARATION

### OF PROPOSALS

#### I. BACKGROUND

The Alternative Renewable Energy Sources Program was authorized in 1975 by Senate Bill 86 (Sections 84-7407 through 84-7412, R.C.M. 1947). Under the program, administered by the Energy Planning Division of the Department of Natural Resources and Conservation, grants are awarded for noncommercial projects which research, develop, or demonstrate the use of such renewable energy sources as solar, wind, geothermal, wood, and biomass. All resident Montana individuals and organizations are eligible to apply. Yearly funding for the program is derived from 2 1/2 percent of 75 percent of the state coal severance tax through 1979; thereafter, the amount available will be 5 percent of 50 percent. Grants are given for a period of one year, and under special circumstances they may be renewed by submitting another proposal for any new portion of a project. All information resulting from the projects is made available to the public.

#### II. GENERAL COMMENTS

##### A. Eligibility Requirements

The Department intends to grant funding to Montana residents for projects conducted in Montana and applicable to this state's energy needs. There is no minimum or maximum allowable request, but in general, applications for more than \$100,000 are not encouraged. Large scale, capital intensive projects are not eligible for funding. Individual inventiveness and small-scale projects are encouraged -- requests for smaller amounts are given as much consideration as larger ones.

The Department is establishing a comprehensive monitoring system for evaluating various systems funded through the program. Thus, portions of proposals involving an expensive monitoring system will generally not be funded. Grantees are encouraged, however, to evaluate the effectiveness of their projects with simple, low-cost equipment (e.g., readily obtainable temperature gages). The expense for such simple devices may be allowed in a grant.

Among the items for which program funds are not considered appropriate are: projects which are complete before the proposal is written or accepted; heating of private swimming pools; excessive users of energy, such as home air conditioning; and basic energy conservation measures. Also the law specifically forbids using grant funds to develop

facilities which market electricity, heat energy, or energy by-products. It is possible that funding may be approved to establish manufacturing facilities designed to produce equipment for alternative renewable energy systems in Montana. However, repayment of all or part of the grant funds may be requested when facilities show profit or stability.

#### B. Submission of Proposals

Submittal periods for grant applications are from January 1 to February 15 and July 1 to August 15 each year. Ten copies of each proposal must be submitted to the following address before 12:00 p.m. on the closing date of a grant submittal period:

Program Manager  
Alternative Renewable Energy Sources Program  
Department of Natural Resources & Conservation  
32 South Ewing  
Helena, MT 59601

A lesser number of copies may be submitted upon prior approval of the Department. Proposals which are clearly postmarked on or before this deadline will be accepted. Any proposal received after the exact time specified for receipt will not be considered unless it is apparent that unusual and unforeseen conditions prevented the application from being filed on time.

### III. PROPOSAL CONTENT

#### A. General

Grant proposals should contain complete and accurate technical, business, and budget information to permit full evaluation and competitive selection without the necessity of obtaining supplemental information. However, unnecessarily elaborate presentations beyond those sufficient to present a complete and effective proposal are not desirable. Clear, concise proposals not only speed the review process, but assure the applicant that all the merits of a proposal can be reviewed.

The Department may request that proposals be clarified or supplemented by additional information but is in no way obligated to accept or consider incomplete proposals. The Department reserves the right to support or not support any proposal in whole or in part. Consequently, commitment to (or installation of) a particular system prior to receiving funding support through the Program is done at the applicant's risk. An otherwise successful project may not be funded if the Department has no latitude in making important revisions in the system design.

If an applicant wishes to make major revisions in a proposal after it is submitted, the Department may require a new application. It must then be resubmitted during a later grant submittal period. Minor revisions, which update or improve the quality of a proposal without changing its scope, will be accepted and reviewed by the Department.

B. Format

The grant application should be typed, printed, or otherwise legibly reproduced on 8 1/2" by 11" paper. Typed material should have a 1 inch margin on all sides and pages should be numbered consecutively. Maps, drawing, sketches, or charts accompanying an application should be identified as "Exhibit \_\_\_\_." Such exhibits are to be cut, folded, or reduced to 8 1/2" x 11" size and should be included in either the exhibit or text portion of the proposal. Each copy of a proposal should be securely bound. Stapling each proposal in the upper left hand corner is the preferred method; plastic slip-on binders are not acceptable.

C. Content

As a means to facilitate the proposal review process and provide all applicants an equal basis for being considered, the following standard content is recommended. Please utilize all applicable portions and follow these guidelines as closely as possible.

1. Title Page. This should include sufficient information to quickly determine the scope of the project and to whom it belongs. A sample title page is provided in Exhibit A. Items which are expected include:
  - a. Renewable energy source being considered (e.g., wind, solar, hydro (or water), biomass, geothermal, wood).
  - b. Purpose of the project (e.g., research, demonstration, development, construction of prototype, public information).
  - c. Type of project (e.g., hot water preheater, home space heating, passive greenhouse, small hydropower generator, renewable energy resource data, alcohol from wood wastes).
  - d. Applicant's name, address, and telephone number.
  - e. Name, address, and telephone number of others who may be contacted concerning the project if the primary applicant is not available.

f. Location or address of the project and name of the landowner involved, if other than applicant (e.g., 17 miles north of Helena on Interstate 15; or 6 miles west of Circle on Highway 200 and 8 miles north [dirt rd.]).

g. Funding request. This is the dollar figure that is expected from the Department in support of a project.

h. Project scope. A very brief description (less than 100 words) of the project size and complexity. Major components should be mentioned.

i. Public information acknowledgment. A statement agreeing that all material submitted by the applicant to the Department is subject to public scrutiny.

2. Abstract. The abstract should consist of a concise statement (less than one page) which summarizes the objectives, general nature, and plan for the undertaking of the project.

3. Table of Contents.

4. Background. This section should include a brief review of those previous projects which serve as a basis for the proposed project (e.g., the state-of-the-art as it relates to the proposed project). The manner in which the proposed project relates to (or builds upon) the activity of others should be discussed. Indicate the physical laws or theories which relate to the project and how the proposed work may extend the knowledge in the field. Point out problems the proposed project may assist in solving as well as its role in meeting future energy needs. This discussion should not exceed three pages.

5. Technical Description. This section will generally constitute the essence of the report. It should contain a complete and accurate description of the system layout and operation (a system schematic is desirable; see Exhibit B for an example), physical dimensions, control logic, major equipment, backup system, any existing equipment, expected performance and any system monitoring. An effort should be made to limit this section to a maximum of 20 pages. Supplementary tables, charts, maps, etc., should be relegated to the Exhibit section with references made to them from the body of the report.

A description of all purchased equipment should include the manufacturer, model, size, rated output, and warranty information. A verified energy load, such as the current electrical demand or last year's



largest heating bills must justify the output sizing for a proposed system (e.g., 4 KW wind generator; heat output for the proposed solar collector area). It should be noted that the Department will question whether all the anticipated output will be used or whether a portion of the project has been deliberately over or undersized. Lavishly oversized systems are not looked upon favorably for funding.

The suitability of the proposed site for the renewable resource being used should be assessed and, whenever possible, the resource availability measured. For example, is the windmill being installed at the windiest possible site? What is the measured wind energy potential? Is the solar panel going to be shaded by trees or mountains a portion of the time? What is the solar insolation at the site? Is wood readily available for a furnace? The net energy yield of the proposed system (i.e., the required work or energy input for the expected output), pollutants or contaminants produced and safety considerations must be addressed. Finally, the energy efficiency of any structure should be discussed (e.g., what are the heat retention characteristics of the structure?).

6. Economic Analysis. This section should discuss the economic feasibility of the proposed system. Included are such items as initial cost, expected maintenance costs, fuel or energy savings, expected component lifetime, payback time period (total system cost divided by the energy savings per year), and a discussion of the possible effects of inflation rates for conventional fuel sources on the payback period.

7. Business Arrangements. This section should include a work schedule and identify business entities (partnerships or corporations), contractors or sub-contractors, and key personnel involved in the propose project. The work schedule should present approximate deadlines for each major step or each completed phase of the project. Ideally, the schedule should show gradual progress on at least a month-to-month basis. However, if lessened project activity is anticipated during certain periods of the year, they should be noted on the work schedule. Time allotments should be generous for portions of the work not under the direct control of an applicant (e.g., subcontracted work, or delivery delays on equipment). Please note that in preparing the schedule, at least three months should be allowed after the grant deadline before receiving a signed contract. Contracts are to run for a maximum of one year, starting on the date they are signed by the Department. Leeway will be allowed on the starting time for contracts in order to guarantee

the grantee a construction period long enough to complete the project. It is not necessary to sign a contract in the middle of the winter even if it is available, since construction cannot start at that time.

Brief resumes should be presented for all key personnel (preferably as an exhibit) which address capability for undertaking the proposed work. The expertise of any contractors which relates to their ability to effectively assist with the project must also be included.

8. **Budget.** It should be recognized that these grants are for promoting alternative renewable energy. Any money requested through this program should apply only to that portion of the project which deals with a renewable energy source. Further, the Department reserves the right to partially fund a proposed project. Once a budget is accepted and a grant authorized, the funding level cannot be increased; only limited shifts (up to 25 percent) from one budget category to another are allowed. Allowable expenditures must be verified before they are paid to grantees. In certain instances, funding advances may be allowed if they are fully explained and approved by the Department. The Department reserves the right to have the grantee submit to a state accounting audit in order to verify expenditure of the grant funds.

The budget should contain actual costs if available, or estimates if not. Cost should be based on prices expected at the time of purchase, which may be 6 to 12 months after the proposal is submitted. The number and total cost of all items used in the project and for which funding support is requested, should be listed in separate columns. If funds are available for the project from other sources they should be listed. This will assist in determining the overall cost-efficiency of a project. If the budget is lengthy or complicated, a summary of the major budget categories should be provided. The total amount of funding requested from the Department should be so indicated in all cases. Unspent funds will revert back to the Program and be made available for subsequent projects. See Exhibit C for an example budget which presents the suggested content and format.

In order to assure uniformity of all proposals and to facilitate subsequent accounting for successful grants, the following budget categories should be used:

a. **Personal Services**

(1) **Salaries.** This category represents the costs for services of individuals necessary to undertake

a project. It includes individuals donating useful labor in return for compensation in one or more of the following forms: salaries, hourly wages and benefits. All salaries should be included as a part of the budget. Special consideration is given to those projects wherein the applicant is willing to contribute the personal labor cost. In those instances where the applicant seeks funds for personal labor, grant monies in the amount of up to \$3 per hour may be used for nominal reimbursement of such costs. The remainder of the wage is to be obtained from other sources or considered to be donated in return for any personal gain which extends beyond the project's value to the state.

b. Operation Expenses

(1) Contracted Services. This category includes expenditures for services necessary to undertake a project. Consultant and professional assistance, data processing, printing, film developing, equipment use (if not rented), and laboratory testing are examples of the items involved.

(2) Supplies and Materials. This category includes consumable commodities which will be used during the project. Minor tools and instruments, film, gasoline, piping, and building materials are included.

(3) Communications. This category includes the cost of transmitting messages and involves such items as telephone, postage and mailing, and data transmission lines.

(4) Travel. This category includes the cost of transportation on such public conveyances as airplanes, railroads, buses and taxicabs. Meals, lodging and mileage allowances when privately owned vehicles are used for transportation are among the items involved. The normal breakdowns in this category are: personal car mileage, commercial transportation, meals and lodging.

(5) Rent. This category includes the charges paid for the use of equipment or facilities.

c. Equipment. This category includes new and replacement equipment which is of a nonconsumable nature, has an estimated life of more than one year and a cost equal to or greater than \$100.00. Commercial solar collectors, rock storage tanks, wind generators, heat pumps, and certain monitoring equipment are among the items involved. For the purposes of clarification, a commercial solar

collector would be listed under equipment. The glazing, insulation, piping, screws, wood, and sealer involved in a home-built collector would be items listed under supplies and materials.

d. Administrative. These include the costs for certain groups to maintain a support structure for conducting a project. Overhead and indirect costs are among the items involved.

9. Exhibits. This final section may include as many subdivisions as necessary to present additional supportive information. It should contain charts, graphs, tables, maps, and sketches (preferably on 8 1/2" x 11" paper), and other visual aids. All tables should be clearly labeled. Graphs should have both scales or axes labeled, and their purpose made clear by a title or statement. Reference to this additional information should be made from the body of the report.

#### IV. PROPOSAL EVALUATION

A comprehensive review of the technical feasibility and economic rationality of the project is required before a proposal can be acted upon. The proposal should present the sort of well-planned action necessary to ensure that, once granted, the proposed project can be carried through without major revisions. The review is made by the Department staff and Alternative Energy Advisory Council. The Council, comprised of Montanans representing various professions, acts as an advisory committee and assists in deciding which proposals offer the greatest benefit to the state. The director of the Department also reviews the projects and holds the final decision-making authority on all grants.

Competitive review considers the maximum value of a project to the general public and development of alternative renewable energy in Montana for the least expenditure. Promotion of renewable energy forms is to be encouraged throughout the state, and local terrain or weather irregularities should be capitalized upon. In making the final decision on the grants, preference will be given to development and demonstration projects, small-scale applications for individual single-unit dwellings and projects which obtain matching funds from federal or other sources. New or innovative ideas are sought rather than strict copies of proven systems. Demonstrations of systems not already established in Montana are also considered. The public visibility or interest created by a project is an important consideration and thus the selection process favors areas of the state which have not received a grant for a similar project.

The state's liability in support of a proposed project shall be limited to a ceiling amount determined by the council and the director of the Department. The Department is not obligated to pay any costs incurred in the preparation and submission of

unsuccessful proposals. Further, the Department will assume no responsibility for the design of a system or demonstration model, its operability or the direct or indirect consequences of failure of a project. Accordingly, the successful applicant and/or contractor must agree to indemnify the state against any and all liability for claims arising from the project.

#### V. REPORTING OF PROJECT RESULTS

Each grantee is required to submit progress reports every quarter and a comprehensive final report when the project is completed. The quarterly reports need not be formal, but should provide the Department a clear idea of progress being made and whether any changes in the initial work schedule are anticipated. The final report will contain an in-depth explanation of what was accomplished, address the degree to which the original proposal was carried out, point out what improvements were made, and present what conclusions can be drawn.

#### VI. PUBLIC INFORMATION

All information resulting from a funded project will be made available to the public and the initial application must acknowledge this fact. At the time the final report is accepted, arrangements will be made to allow public access to the project without inconvenience to the grantee. Access may be required for up to five years on working demonstration systems, during which time the applicant will be required to provide project upkeep and cooperate with any monitoring efforts.

In the event that an invention, improvement, or discovery (whether patentable or not) is made during the course of the project, the successful applicant must notify the Department of the fact. The Department retains the power to determine whether a patent application shall be filed, and to control the disposition of all rights under any resulting patent. If the Department obtains the patent rights, the successful applicant may be offered license rights. These rights will include provisions for payback to the Department (under terms established by the Department) as well as provisions requiring any marketing to be conducted in Montana.





EXHIBIT A  
SAMPLE TITLE PAGE

GRANT PROPOSAL SUBMITTED TO THE  
MONTANA DEPARTMENT OF NATURAL RESOURCES AND CONSERVATION  
ALTERNATIVE RENEWABLE ENERGY SOURCES PROGRAM

SOLAR DEMONSTRATION PROJECT  
HOME SPACE HEATING

APPLICANT

John J. Doe  
P.O. Box 361  
Jordan, Montana 59732  
Phone: 876-5432 (Home)  
876-6621 (Work)

PROJECT CONSULTANT

James R. Smith  
346 Coyote Lane  
Richey, Montana 59631  
Phone: 963-1234 (Home)  
963-2083 (Work)

PROJECT LOCATION  
Twenty miles east of Jordan, Montana  
on Highway 200

FUNDING REQUEST  
\$9,275.00

PROJECT SCOPE

Project consists of retrofitting 400 square feet of flatplate hot-air solar collectors to existing hot-air furnace ducts. Ten tons of rock added to an insulated concrete tank in the basement will provide energy storage. Monitoring of air temperatures from collectors will continue after construction is finished.

PUBLIC INFORMATION ACKNOWLEDGEMENT

In the event this proposal is funded, it is agreed that all resulting information may be made available to the public. In addition, it is agreed that all information contained in this application is public, and the applicant hereby waives any claim to confidentiality.





EXHIBIT B  
EXAMPLE PROJECT SCHEMATIC

PROJECT SCHEMATIC

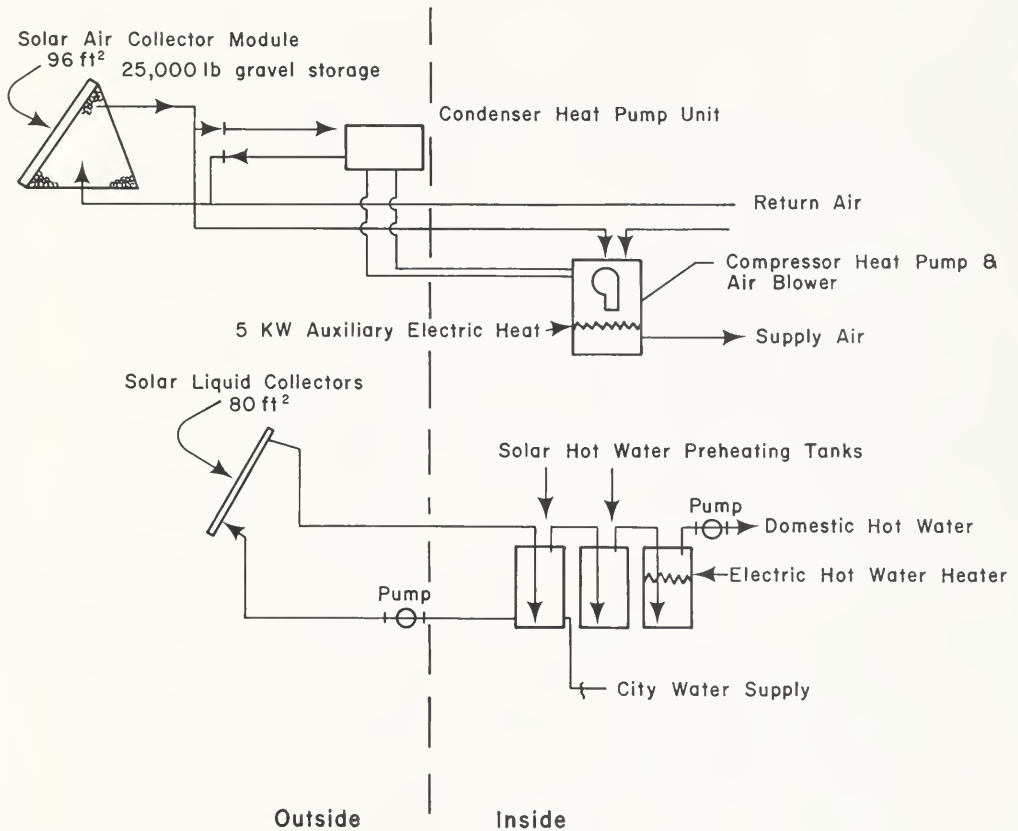




EXHIBIT C  
EXAMPLE BUDGET

		<u>Expense</u>		
		<u>Grant Request</u>	<u>Other*</u>	<u>Total</u>
I. Salaries				
A.	John Doe (100 hrs. @ \$3.00)	\$150.00	\$150.00	\$300.00
B.	Benefits @ 13%	<u>19.50</u>	<u>19.50</u>	<u>39.00</u>
	Subtotal (Salaries)	169.50	169.50	339.00
II. Operating Expenses				
A.	Contracted Services			
1.	James Smith (Engineer) (25 hr. @ \$22.50)	281.25	281.25	562.50
2.	Film processing	20.00	20.00	40.00
3.	Ducting installation	<u>400.00</u>	<u>400.00</u>	<u>800.00</u>
	Subtotal (Services)	701.25	701.25	1,402.50
B.	Supplies and Materials			
1.	Rock storage			
a.	Concrete (3 yd. @ \$32.00)	96.00	-	96.00
b.	Reinforcing mesh (40 sq. ft. @ \$.50)	20.00	-	20.00
c.	Rigid styrofoam insulation (3") (400 sq. ft. @ \$.75)	300.00	-	300.00
d.	Water resistant glue (1 gal. @ \$10.00)	10.00	-	10.00
e.	Sealer (2 gal. @ \$5.00)	10.00	-	10.00
f.	Washed gravel (3/4" -1½") (12 yds. @ \$16.50)	198.00	-	198.00
2.	Solar Collectors (Homemade)			
a.	ribbed aluminum panels 28 gauge (518 sq. ft. -ARW 4 @ \$.65/sq. ft. )	336.70	-	336.70
b.	tempered glass, 5/8" x 34" x 76" (27 pieces @ \$94.30 each)	2,546.10	-	2,546.10
c.	styrofoam insulation, 3" thick (518 sq. ft. @ \$.65/sq. ft)	336.70	-	336.70
d.	plywood backing, ½" x 4' x 8' (20 sheets @ \$9.00/sheet)	180.00	-	180.00

\*These are the expenses which will be reimbursed by a funding source other than the Renewable Energy Program (e.g. the applicant's contribution to the proposed project).

e.	framing, 2" x 6", 325 linear feet (@ \$.24/lineal foot)	78.00	-	78.00
f.	sheet metal for gutter, 28 gauge (10 sq. ft. @ \$.53/sq. ft.)	-	5.30	5.30
g.	lag screws, 4" long (100 screws @ \$.37 each)	-	37.00	37.00
h.	nails, 16d. (10 lbs. @ \$.58/lb.)	-	5.80	5.80
i.	neoprene gasket, 1/4" x 3/8" in roll (250 feet @ \$.10/lin. ft.)	-	25.00	25.00
j.	glue, tape, brads, solder	-	4.67	4.67
3.	Plumbing			
a.	black-iron pipe, 3/4" dia. (59 feet @ \$.74/lin. ft.)	43.66	-	43.66
b.	4 - tees	4.00	-	4.00
c.	3 - 90°elbows	2.25	-	2.25
d.	4 dead-end plugs	.75	-	.75
e.	pipe dope	-	.50	.50
4.	Controls			
a.	wiring - 18 gauge (115 feet @ \$.09/lin. ft.)	-	10.35	10.35
b.	screws for mounting, #8 wood (1 box @ \$3.00/box of 50)	-	3.00	3.00
c.	temperature sensors, Sunerco Model (4 #SP3 sensors @ \$15. each)	60.00	-	60.00
	Subtotal (Supplies)	\$ 4,222.16	\$ 91.62	\$4,313.78
C.	Communications			
1.	Telephone calls to suppliers	-	45.00	45.00
2.	Postage for design plans (1st class)	-	3.75	3.75
3.	Magnetic tape (for recording planning sessions)	-	4.50	4.50
	Subtotal (Communications)	-	53.25	53.25
D.	Travel			
1.	Car allowance (300 miles @ \$.10/mi.) (round trip to Billings for discussion with architect and viewing similar solar installation)	30.00	-	30.00
2.	Motel (one night @ \$12./night)	6.00	6.00	12.00
3.	Meals on trip, breakfast and dinner	-	8.20	8.20
	Subtotal (Travel)	36.00	14.20	50.20
	Subtotal (Expenses)	\$ 4,959.41	\$ 860.32	\$5,819.73
E.	Rent	none	none	

### III. Equipment

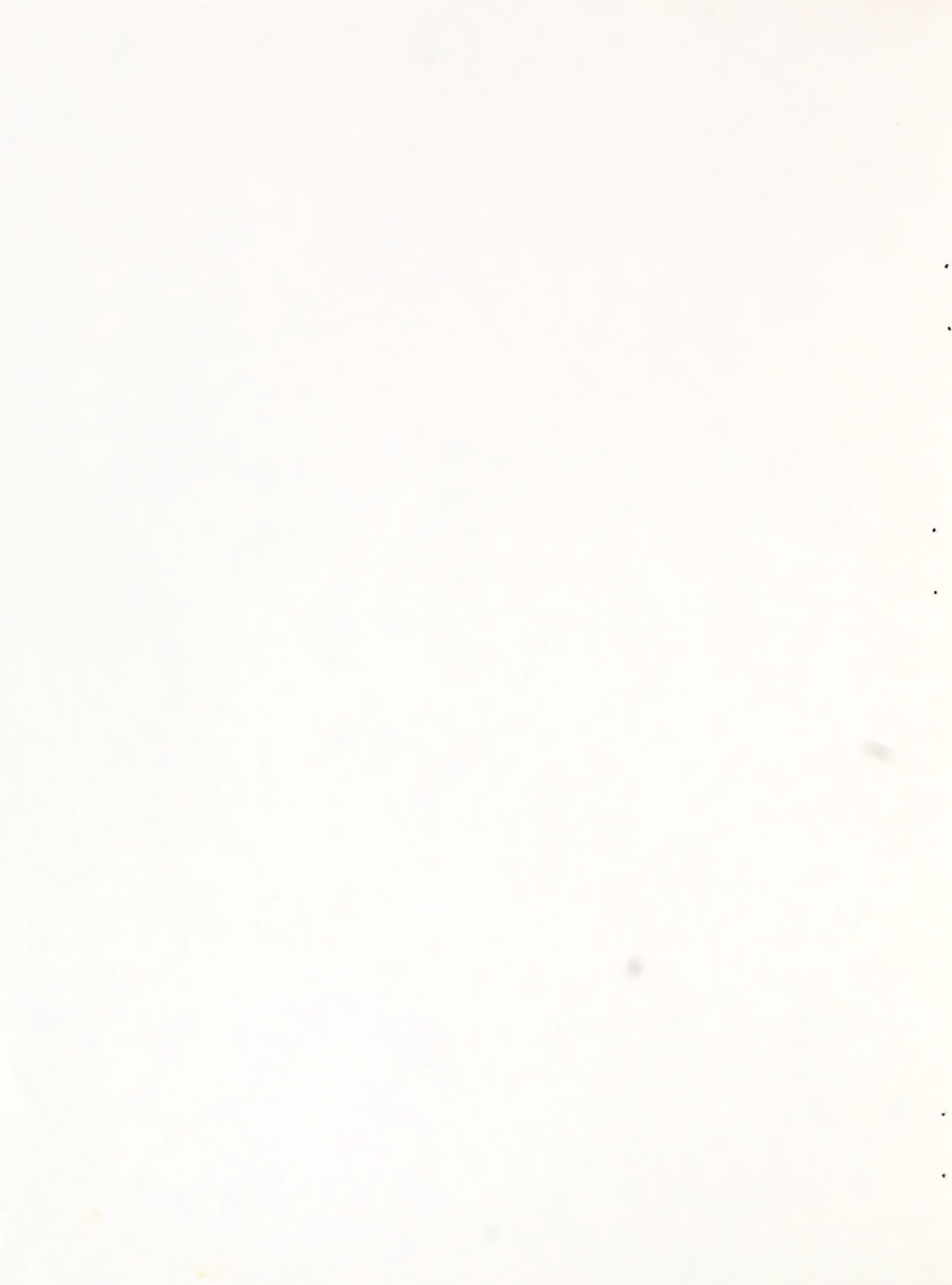
A. Centrifugal water pump, $\frac{1}{4}$ hp. Best Pumps, Inc. (#P-102)	145.00	-	145.00
B. Heat exchanger, air-water type, 2-row, 6-tube double pass American Airfoil Co. Model W-301, 30" x 24" face area	505.00		505.00
C. Heat pump, 30,000 BTU, Home Heat SW-2984		1,000.00	1,000.00
D. Centralized electronic controller, Technica Model SPQ-204 (switches on/off two motors in reaction to four sensor inputs)	375.00	-	375.00
E. Motorized air duct dampers (for switching from solar to backup automatically) 2 dampers @ 112. each	224.00	-	224.00
F. Concrete tank (400 cubic feet) for rock storage	<u>600.00</u>	-	<u>600.00</u>
Subtotal (Equipment)	\$1,849.00	1,000.00	\$2,849.00

### IV. Administration

A. Overhead costs 10% of labor costs	-	<u>53.00</u>	<u>53.00</u>
Subtotal (Administration)		\$53.00	\$53.00

### Summary of Budget

I. Salaries	\$ 169.50	\$ 169.50	\$ 339.00
II. Operating Expenses	4,959.41	860.32	5,819.73
III. Equipment	1,849.00	1,000.00	2,849.00
IV. Administration		<u>53.00</u>	<u>53.00</u>
TOTAL (Grant request)	\$6,977.91		
TOTAL (Other)		\$2,082.82	
TOTAL (Project Cost)			\$9,060.73



ALTERNATIVE RENEWABLE ENERGY SOURCES PROGRAM

LAW

AN ACT CREATING A FUND FOR RESEARCH, DEVELOPMENT AND DEMONSTRATION OF ALTERNATIVE ENERGY SOURCES AND ALLOCATING CERTAIN REVENUE FROM COAL TAXES TO THE FUND: DIRECTING THE DEPARTMENT OF NATURAL RESOURCES AND CONSERVATION TO MAKE GRANTS FROM THE FUND IN SUPPORT OF ALTERNATIVE ENERGY RESEARCH: PROVIDING FOR AN ALTERNATIVE ENERGY ADVISORY COMMITTEE: MAKING APPROPRIATIONS: AMENDING SECTION 84-1309.1, R.C.M. 1947.

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF MONTANA:

84-7407. PURPOSE. The purposes of this act are to stimulate research, development, and demonstration of energy sources which are harmonious with ecological stability by virtue of being renewable, thereby to lessen that reliance on nonrenewable energy sources which conflicts with the goal of long-range ecological stability, and to provide for the funding and administration of such research, provided that demonstration or development projects funded under this act may not be used to commercially market electricity, heat energy, or energy by-products.

84-7408. DEFINITIONS. As used in this act:

(1) "Alternative renewable energy source" means a form of energy or matter, such as solar energy, wind energy, or methane from solid waste, capable of being converted into forms of energy useful to mankind, and the technology necessary to make this conversion, when the source or the technology are not in general commercial use.

(2) "Person" means a natural person, corporation, partnership, or other business entity, association, trust, foundation, any educational or scientific institution, or any governmental unit.

(3) "Department" means the Montana Department of Natural Resources and Conservation.

84-7409. ALTERNATIVE ENERGY RESEARCH DEVELOPMENT AND DEMONSTRATION ACCOUNT ESTABLISHED. There is within the earmarked revenue fund an alternative energy research development and demonstration account. Moneys are paid into this account under section 84-1319. The state treasurer shall draw warrants payable from this account upon order of the department.

84-1319. DISPOSAL OF SEVERANCE TAXES. Severance taxes collected under the provisions of this chapter are allocated as follows:

(1) To the trust fund created by Article IX, section 5 of the Montana Constitution, 25% of total collections a year. After December 31, 1979, 50% of coal severance tax collections are allocated to this trust fund. The trust fund moneys shall be deposited in the fund established under 79-309(5) and invested by the board of investments as provided by law.

(2) Coal severance tax collections remaining after allocation to the trust fund under subsection (1) are allocated in the following percentages of the remaining balance:

(b) 2-1/2% until December 31, 1979, and thereafter 5% to the earmarked revenue fund to the credit of the alternative energy research development and demonstration account.

84-7410 DEPARTMENT -- GENERAL POWERS. The department may:

(1) employ a staff adequate to administer this act;

(2) retain professional consultants and advisors;

(3) adopt rules governing applications and granting of funds;

(4) consider applications for grants and award grants, subject to the availability of funds, and to the appropriation of such funds by the legislature from the alternative energy research development and demonstration funds for projects that will further the purposes of this act;

(5) appoint an alternative energy advisory committee composed of representatives of state agencies and citizen members with expertise in alternative energy matters. The appointment of any such advisory committee shall be in keeping with section 82A-110.

84-7411. APPLICATIONS FOR GRANTS. Any person may apply for a grant to enable him to research, develop or demonstrate alternative renewable energy sources. The department shall prescribe the form for applications. Applicants shall describe the nature of their proposed investigations, including practical applications of the possible results and time requirements.

84-7412. CRITERIA FOR GRANT AWARDS. The department may award grants to applicants under section 84-7411 in accordance with the following criteria:

(1) A grant may cover a period not exceeding one (1) year, and the department may not commit itself to spending funds anticipated to be available more than one (1) year after the grant period begins. The department may give an applicant a statement of intent to renew its support of his work, subject to the availability of funds and such other conditions as the department may express.

(2) The department may give preference to projects which are also supported by grants from the federal government or other persons provided the grants are consistent with the other objectives



of the department. The purpose of this preference is to use the alternative energy research development and demonstration account for matching moneys in order to support more substantial research.

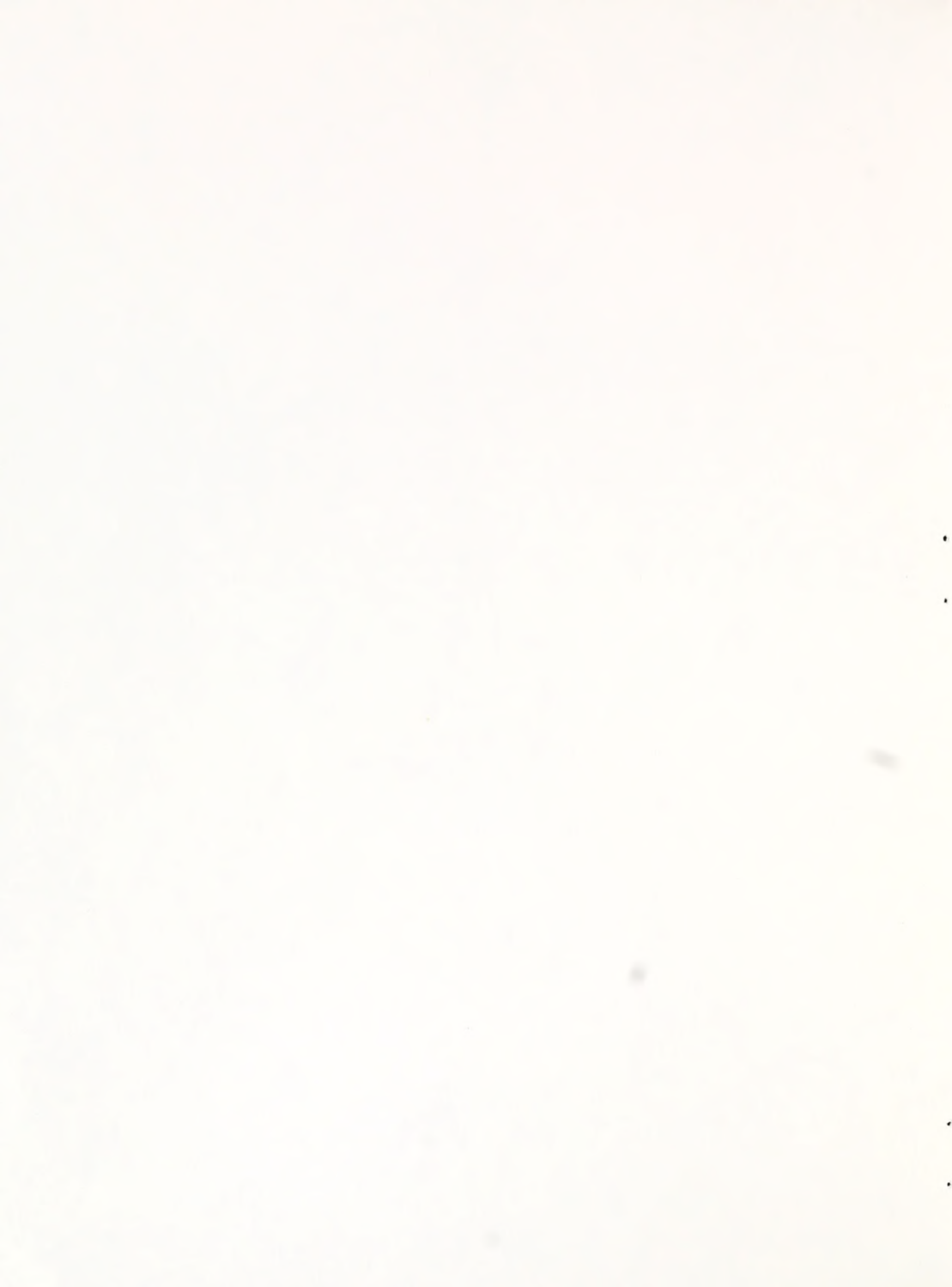
(3) The department may give preference to research centers unattached to existing educational institutions where several investigators can share supporting services. However, this shall not be interpreted to prohibit the department from awarding grants to existing educational institutions.

(4) The department may give preference to research centers which make information available to individuals, small businesses, and small communities seeking the use of renewable energy sources in their homes, plants, places of business, and small communities.

(5) All information resulting from such research shall be made available to the public and shall not become the private property of or under the exclusive control of any one (1) company or person.

(6) The department is under no requirement to expend or commit available alternative energy research, development and demonstration funds when in its judgement such expenditures or commitments would be unproductive.

84-7413. BIENNIAL REPORT. The department shall report its expenditures and other activities under this act to the legislature at the beginning of each regular legislative session.



# ALTERNATIVE RENEWABLE ENERGY SOURCES PROGRAM

## RULES

### Sub-Chapter 18

#### Alternative Renewable Energy Source Grants

Section	36-2.8(18)-S8060	PURPOSE OF RULES
Section	36-2.8(18)-S8070	DEFINITIONS
Section	36-2.8(18)-S8080	STATEMENT OF ADMINISTRATIVE POLICIES
Section	36-2.8(18)-S8090	APPLICATIONS -- GENERAL REQUIREMENTS
Section	36-2.8(18)-S8100	APPLICATION CONTENT
Section	36-2.8(18)-S8110	APPLICATION SUBMITTAL DEAD- LINES
Section	36-2.8(18)-S8120	APPLICATION EVALUATION
Section	36-2.8(18)-S8130	AWARDING GRANTS -- CRITERIA
Section	36-2.8(18)-S8140	CONDITIONS UNDER WHICH GRANTS MAY BE USED AND OTHER CONDITIONS
Section	36-2.8(18)-S8150	PAYMENT OF GRANTS
Section	36-2.8(18)-S8160	PROJECT ADMINISTRATION
Section	36-2.8(18)-S8170	CONFIDENTIALITY

36-2.8(18)-S8060 PURPOSE OF RULES Senate Bill 86 enacted by the 1975 Legislature provides for the funding through the Department for research, development and demonstration of alternative renewable energy sources. The purpose of the rules in this sub-chapter is to provide criteria and guidelines to aid in the implementation of that law.

36-2.8(18)-S8070 DEFINITIONS Unless the context requires otherwise, as used in the act and in the rules in this sub-chapter:

(1) "Act" means Chapter No. 501, Montana Session Laws of 1975 (also referred to as the "Alternative Renewable Energy Sources Act"; Section 84-7407 et seq., R.C.M. 1947).

(2) "Alternative renewable energy source", as defined in Section 84-7408(1) of the Act, means a form of energy or matter, such as solar energy, wind energy, or methane from solid waste, capable of being converted into forms of energy useful to mankind, and the technology necessary to make this conversion, when the source is not exhaustible in terms of this planet and when the source or the technology are not in general commercial use.

(3) "Person" means a natural person, corporation, partnership, or other business entity, association, trust, foundation, any educational or scientific institution, or any governmental unit.

(4) "Department" means the Department of Natural Resources and Conservation.

(5) "Application" means a written application to the Department for funding under the terms of the Act and these rules.

(6) "Research" means an extensive, systematic study to discover or revise facts or theories and which would bring to more advanced state the capabilities, availability and suitability of a renewable alternative energy source.

(7) "Develop" or "development" means a project which utilizes the basic results of research or available knowledge and applies those results or knowledge to the actual development of hardware. The term also includes the establishment of manufacturing facilities to produce renewable alternative energy systems in Montana, but it does not include the development of a project or facility to commercially market electricity, heat energy, or energy by-products.

(8) "Demonstrate" or "demonstration" means an extensive, systematic plan and follow through to establish that specific renewable alternative energy sources are practical and can be made to work reliably over long periods of time. These projects are primarily physical models which will be proven.

#### 36-2.8(18)-S8080 STATEMENT OF ADMINISTRATIVE POLICIES

(1) It is objective of the Department to orient the funding program toward the small scale, individual, single unit dwelling type of application. Large scale, capital intensive project applications will be accepted, but the program emphasis will be directed toward the aforementioned type of application.

(2) It is the objective of the Department to give funding preference to development and demonstration projects.

(3) It is the intent of the Department to only grant funding for applications which are submitted by persons who are residents of the state of Montana, and only for projects conducted in Montana. "Conducted" means that the research and development project will be headquartered in Montana and that all development will be built in Montana. This condition does not prohibit the use of expertise outside the State of Montana.

(4) Persons who are employees or contractors of the Department, or who are members of the Board of Natural Resources and Conservation, are not eligible for funding under the Act. Relatives related to such person by consanguinity within the fourth degree or by affinity within the second degree are likewise not eligible for funding.

(5) Applications to research, develop, or demonstrate geothermal energy sources on a small scale will be considered for funding. Large scale, capital intensive projects are not eligible for funding.

(6) Some types of renewable alternative energy sources (e.g., solar and wind) are unable to produce energy on a continuous basis, therefore applications for studying energy storage devices associated with such renewable energy sources will be accepted.

(7) As a general rule applications for more than \$100,000 will not be granted. However, the Department will accept and review applications for more than \$100,000. If the Department determines that such a proposal is particularly applicable to Montana's energy needs and technically outstanding, it may be funded. There is no lower limit for funding.

(8) The Department will appoint an Alternative Energy Advisory Council (AEAC) consisting of five members who will make recommendations on which applications should be funded. The Department makes the final decision as to which applications are funded.

(9) Applications shall be applicable to Montana's energy needs. If the technology is not feasible as suited to the needs of Montana, the application will not be granted.

(10) The Department may fund all or only part of a proposal. Generally, only an application which is directly related to the research, development, or demonstration of alternative renewable energy sources will be funded. For example, an application to build a \$50,000 solar home may not be funded in full, but an application to demonstrate new solar technology as part of a home may be funded.

#### 36-2.8(18)-S8090 APPLICATIONS - GENERAL REQUIREMENTS

(1) Any person may make application for a grant to fund a proposal under the Act and these rules. The applicant should normally submit ten copies of the application at the time of filing to the Energy Planning Division of the Department, 32 South Ewing, Helena, Montana, 59601, consistent with these rules. A lesser number of copies may be submitted upon prior approval of the Department.

(2) Although not required, to facilitate uniformity the application should meet the following requirements:

(a) The application should be typed, printed, or otherwise legibly reproduced on 8 1/2 x 11" paper. Maps, drawings, charts, or other documents bound in an application should be cut or folded to 8 1/2 x 11" size. Maps, drawings, or charts may accompany an application as separate exhibits.

(b) Typed or offset material should have a 1" margin on all sides.

(c) All pages in an application should be consecutively numbered. Maps, drawings, or charts accompanying the application as exhibits should be identified as "Exhibit \_\_\_\_\_," and if comprising more than one sheet should be numbered "sheet \_\_\_\_\_ of \_\_\_\_\_."

(3) (a) The application shall state the name, title, telephone number, and post office address of the person to whom communication in regard to the application should be made.

(b) The application shall contain a statement agreeing that all materials submitted by the applicant to the Department is subject to public scrutiny.

(4) The Department will review the application to determine whether it is in substantial compliance with the Act and these rules. If the Department determines that the application is not in substantial compliance with the Act and these rules, the application will be considered deficient and the Department will reject the application, notifying the applicant in writing and listing the application deficiencies. The application may be re-submitted after corrections are made.

(5) The applicant should submit supplemental material upon request or when it becomes available without undue delay after an application is filed to update drawings and information submitted with the original application.

(6) If an applicant desires to change or add to an application, after it is formally filed, the applicant shall inform the Department in writing as soon as possible of the change or addition. If the change or addition will result in a substantial change in the amount of funding requested or the goals and objectives stated in the original application, the Department will consider the change or addition to constitute a new application.

(7) There is no form adopted by the Department to fill out in making an application.

#### 36-2.8(18)-S8100 APPLICATION CONTENT

(1) An application shall include a general declaratory statement indicating whether the applicant is seeking funds for a research, development, or demonstration project.

(2) The application shall include a declaration of the type of renewable alternative energy source to be studied (i.e., wind, solar, water, etc.).

(3) The application should contain a review of the existing "state of the art" conducted by the applicant in the area of interest.

(4) The application should include, whenever applicable, a description of the proposal, including, but not limited to:

(a) A theoretical basis for the proposal including all pertinent maps, diagrams, and photographs;

(b) The proposed technology including all pertinent diagrams and photographs;

(c) The proposed research methods and construction methods if construction is a factor, plus all pertinent maps, diagrams, and photographs;

(d) The proposed facilities and equipment needed, including physical dimensions, diagrams, and photographs;

(e) The proposed time schedule for project development;

(f) A description of the proposed anticipated results, both practical and theoretical;



(g) A statement as to how the project can advance the state of the art;

(h) A statement indicating where the project will be constructed, and why that particular site is suited to the proposed project;

(i) A statement indicating who will work on the project, and what their various qualifications are;

(j) A statement of the role of the project in meeting future energy needs;

(k) A statement of how the project will be feasible and applicable;

(l) A statement of the project's environmental compatibility, especially:

(i) Pollutants or contaminants produced;

(ii) An estimate of the net energy yield of the project.

(5) The application shall include an estimated maximum budget which may not be exceeded, which should contain:

(a) The wages and salaries of all research personnel, clerical help, craftsmen, etc. (itemized);

(b) A list of employee benefits;

(c) A list of building costs;

(d) A list of equipment costs (equipment generally are permanent items);

(e) A list of administrative and overhead costs;

(f) A list of the cost of supplies (supplies generally are exhaustible items);

(g) A list of communication and travel costs;

(h) A list of any other expenses.

(6) The application should contain a copy of all contracted or sub-contracted work, including budgets, who is to do the work, and what work is to be done. If these are not available at the time of application, they shall be submitted at the time they become available.

36-2.8(18)-S8110 APPLICATION SUBMITTAL DEADLINES Applications shall be submitted from January 1 through February 15 and from July 1 through August 15.

36-2.8(18)-S8120 APPLICATION EVALUATION

(1) In general, applications will be reviewed and evaluated by members of an adhoc committee which will be established by the Department. These members will be qualified technical people in their respective renewable alternative energy fields. They may or may not be residents of the state of Montana. The evaluations will be done on an anonymous and confidential basis and the results will be disclosed to the applicant upon request.

(2) The Alternative Energy Advisory Council (AEAC) will meet to discuss the reviews and evaluations of each application and make recommendations to the Department.

(3) Due to the finite amount of funds available during each evaluation and grant period, applications received for consideration at that time will be compared for relative merit as well as individual merit. The Department will then decide which applications to fund.

### 36-2.8(18)-S8130 AWARDING GRANTS - CRITERIA

(1) A grant awarded by the Department may cover a period not exceeding one (1) year, and the Department may not by law commit itself to spending funds anticipated to be available more than one (1) year after the grant period begins. The Department may, however, issue letters of intent to renew projects which require more than one year for completion if in the opinion of the Department, the first year of work is successful and achieves the goals established by the original application. Applications for renewal will be evaluated in the normal evaluation manner and must compete with new applications for funding.

(2) The Department may give preference to research centers unattached to existing educational institutions where several investigators can share supporting services. However, this shall not be interpreted to prohibit the Department from awarding grants to existing educational institutions or individuals.

(3) If a manufacturing project defined under the development type of application is successful, the applicant may be required to repay the Department all or part of the funds granted.

(4) By law, all information resulting from research, development, or demonstration projects funded by the Department under the Act and these rules shall be made available to the public and may not become the private property of or under the exclusive control of any one company or person.

(5) The Department is under no requirement to expend or commit available alternative renewable energy research, development and demonstration funds when in its judgment such expenditures or commitments would be unproductive.

### 36-2.8(18)-S8140 CONDITIONS UNDER WHICH GRANTS MAY BE USED AND OTHER CONDITIONS

(1) Applicants shall enter into a contract grant agreement with the Department if funded, under such terms and conditions the Department considers appropriate. If the recipient feels that changes in the contract are necessary at some later date, then those changes shall be negotiated with the Department. If a satisfactory agreement cannot be reached, the contract and the funding may be terminated by the Department.

(2) Grant recipients shall submit periodic progress reports as specified by the Department, and shall submit final reports to the Department within three (3) months following the yearly grant period.

(3) Grant recipients shall submit an itemized list of expenses with each monthly or quarterly billing for payment.

(4) Grant recipients shall make oral or written presentations of progress if requested to do so by the Department.

(5) Funds granted under the terms of the Act and these rules may be used only for the purposes outlined and described in the application and approved by the Department, and detailed records shall be kept by the recipient for all expenditures. Since the proposal budgets are initially estimated, some transfers up to 25% among the budget categories expenditures will be allowed.



(6) The grant recipient shall maintain an accounting system which adequately accounts for expenditures in a manner acceptable to the Department. Records, expenditures, bookkeeping, etc. for funded projects are subject to audit by the Office of the Legislative Auditor and the Department.

(7) Arrangements shall be made to assist, guide, and inform the Department during on site investigations. The Department will make such investigations at its discretion.

#### 36-2.8(18)-S8150 PAYMENT OF GRANTS

(1) Upon approval of an application by the Department, funds will be set aside for that particular project.

(2) Payments shall be made on a monthly or quarterly basis against the balance of a given application's funds, upon a request for payment by the recipient.

(3) Payments will be made only on valid project related expenditures, and any balance of payment made at the end of the one year's funding period shall be returned to the Department.

#### 36-2.8(18)-S8160 PROJECT ADMINISTRATION

(1) The results of all research, development or demonstration projects shall be made public record.

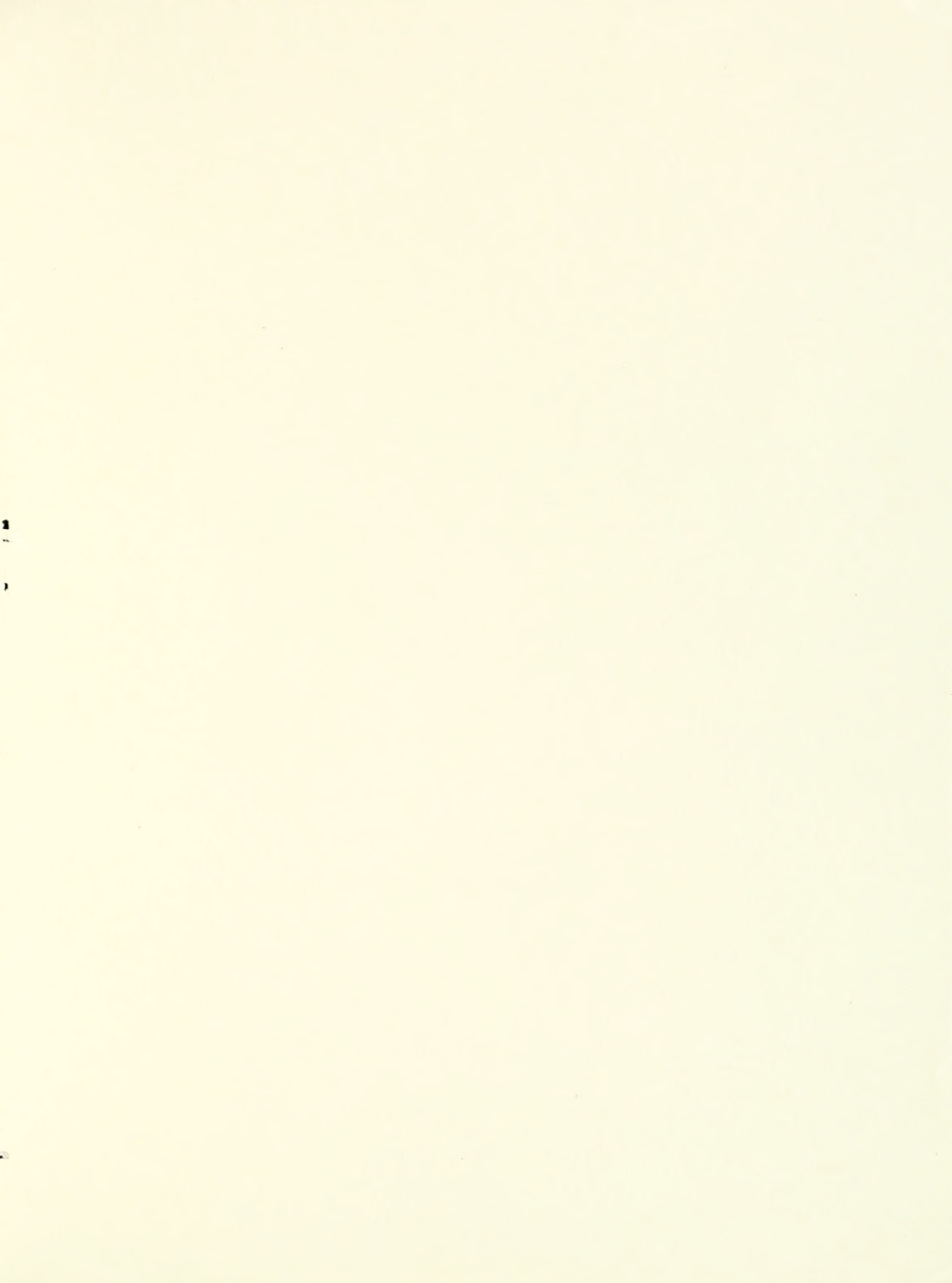
(2) Persons receiving demonstration funds may be required to make their projects open to the public during reasonable hours for a period of time specified by the Department.

(3) The Department may inspect and monitor all projects on a regular basis after completion of the project.

(4) The applicant may be required to maintain his funded project during the monitoring period.

36-2.8(18)-S8170 CONFIDENTIALITY Upon submitting an application to the Department pursuant to Rules 36-2.8(18)-S8160 through 36-2.8(18)-S8170 the application becomes a government document subject to public scrutiny. The applicant waives any claim of confidentiality by filing an application with the Department.





***Montana Department of Natural Resources and Conservation  
Energy Planning Division  
32 South Ewing  
Helena, Montana 59601***